

Abstract

PROVIDING DIFFERENT QOS TO LAYER-3 DATAGRAMS WHEN TRANSPORTED ON TUNNELS

A network device (e.g., network access server or home gateway) providing different QOS

5 (quality of services) to different layer-3 datagrams when transporting on tunnels. A tunnel may be implemented to provide different QOS to different packets depending on the packet header.

The network device examines the header of each datagram to determine the specific QOS to be provided. At least the data portion in the datagram is encapsulated for transportation on the tunnel. The encapsulated data portion in turn is encapsulated in the form of one or more packets, with the packet format to reflect the QOS determined for the datagram. When the tunnel is implemented on UDP/IP and the datagram is an IP (Internet protocol) datagram, the TOS/Precedence bits of the IP datagram may be copied into the precedence/TOS bits of the UDP/IP packet(s).

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